

CLAIMS:

1. A method for data transmission in a power supply network, wherein data transmitted on a particular phasing line (11) of the power supply network is received and then re-transmitted, characterized in that the data is re-transmitted on at least one phasing line (12, 13) different from the said phasing line (11).

2. A method as claimed in claim 1, characterized in that the data is re-transmitted on all phasing lines (11 – 13).

3. A method as claimed in claim 1 or 2, characterized in that the data is re-transmitted on the phasing lines (11 – 13) on which its original signal strength lay below a threshold value.

4. A method as claimed in at least one of claims 1 to 3, characterized in that the data is re-transmitted only on the phasing lines (11 – 13) to which the addressees (20 – 25) of the data are connected.

5. A method as claimed in at least one of claims 1 to 4, characterized in that a preparation, in particular a channel equalization and channel matching, is undertaken before the re-transmission.

6. A device (1) for data transmission in a power supply network, comprising a receiver (3 – 5) for receiving data transmitted on a first phasing line (11 – 13) of the power supply network, and a transmitter (3 – 5) for transmitting data on a second phasing line (12 – 13) of the power supply network, characterized in that the first and second phasing lines are different.

7. A device as claimed in claim 6, characterized in that it comprises a receiver and a transmitter (3 – 5) for each phasing line (11 – 13) of the power supply network, and that all receivers and transmitters are coupled together by a control unit (2).

8. A device as claimed in claim 6 or 7, characterized in that it comprises a storage device for the temporary storage of data transmitted on the phasing lines (11 – 13) of the power supply network.

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9. A device as claimed in at least one of claims 6 to 8, characterized in that it is equipped with additional transmitting and receiving modules for connection to other networks with different transmission methods.

10 10. A device as claimed in at least one of claims 6 to 9, characterized in that it is equipped with an additional network filter for separation of an in-home network from an external network, wherein a further transmitter and receiver are preferably integrated on the external side, and selected data is routed past the filter.